



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,967	02/09/2004	Deepak V. Ayyagari	J-SLA.1368	2160
55428	7590	03/28/2008		
ROBERT VARITZ 4915 SE 33RD PLACE PORTLAND, OR 97202			EXAMINER SCUDERL, PHILIP S	
			ART UNIT 2153	PAPER NUMBER
			MAIL DATE 03/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/775,967

**Applicant(s)**

Ayyagari, Deepak V.

**Examiner**

Philip S. Scuderi

**Art Unit**

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, filed 12/17/2007, have been considered and are persuasive.

Applicant correctly notes that the cancellation of claims 1-16 renders the rejections and objections set forth in the last office action moot. Accordingly, those rejections and objections have been withdrawn.

Applicant argues that Stillman (U.S. Patent No. 5,551,066) does not teach or suggest the limitations set forth in the new independent claims. The examiner agrees and has therefore not relied upon Stillman to reject the claims herein. However, upon further consideration, a new grounds of rejection is made in view of newly discovered prior art.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 17-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Rune (U.S. Pub. No. 2001/0029166).**

Rune teaches a system for improving Bluetooth networks. (Rune, ¶34).

Nodes in Rune's system discover neighbor nodes by exchanging modified PAGE RESPONSE messages. (Rune, ¶83). The PAGE RESPONSE messages include Device Access

Code (DAC) fields that identify senders of these messages. (Rune, ¶25). The PAGE RESPONSE messages can further include Bluetooth unit Addresses (BR\_ADDRs) of master nodes of piconets in which the sending units are slave members. (Rune, ¶88).

The nodes in Rune's system use the information in the PAGE RESPONSE messages to determine which nodes to connect to. (Rune, ¶94). For example, a node can request to connect to another node and specify in the request whether it wishes to be a master or a slave node. (Rune, ¶70-78).

As to claim 1, Rune teaches a multiphase method performed by at least a first node of a plurality of nodes in a communication network to determine a central coordinator node for the communication network from among the plurality of nodes, comprising the steps of:

- conducting a listening phase wherein the first node listens for an indication that a central coordinator (master) node has already been elected (Rune, ¶70-78);

- conducting a discovery phase after the listening phase wherein the first node transmits its node identity (DAC of sender in PAGE RESPONSEs) and receives from other nodes node identities of other nodes that have transmitted their node identities (BR\_ADDRs of master nodes or DAC of sender in PAGE RESPONSEs) (Rune, ¶25, 83, 88);

- conducting an election phase after the discovery phase wherein the first node transmits a list of discovered node identities (BR\_ADDRs of master nodes in PAGE RESPONSEs) received by the first node from other nodes during the discovery phase, receives from other nodes lists (BR\_ADDRs of master nodes in PAGE RESPONSEs) of discovered node identities received by other nodes during the discovery phase and generates topological data (BR\_ADDRs of master

nodes and any other data listed in ¶84-93) based at least in part on information in the transmitted and receives lists (Rune, ¶25, 84-93); and

conducting a confirm phase after the election phase wherein the first node selectively transmits an indication that the first node is the central coordinator (master) node based at least in part on analysis of the topological data (including BR\_ADDRs of master nodes) (Rune, ¶70-78, 84-94).

As to claim 18, Rune teaches that when the first node transmits an indication that the first node is the central coordinator (master) node the first node schedules access on the communication network by other (slave) nodes (Rune, ¶8, 70-78).

As to claim 19, Rune teaches that when the first node does not transmit an indication that the first node is the central coordinator (master) node the first node accesses the communication network on a schedule determined by another (master) node that has been elected the central coordinator (master) node (Rune, ¶8, 70-78).

As to claim 20, Rune teaches that the first node transitions between phases in response to timers on the first node (Rune, ¶7).

As to claim 21, Rune teaches that the transmitted list includes a node classification (by BR\_ADDR or DAC) of the first node and the received lists include node classifications of other nodes (by BR\_ADDR or DAC) (Rune, ¶25, 83, 88).

As to claim 22, Rune teaches that the topological data comprises a table having entries for other nodes from which the first node has received lists of discovered node identities, and wherein each entry includes a node identity (DAC) of another node from which the first node received the list and discovered node identities (BR\_ADDRs of master nodes) from the list (Rune, ¶25, 84-93).

As to claim 23, Rune teaches that each entry further includes a node classification (DAC) of another node from which the first node received the list (Rune, ¶25, 84-93).

As to claim 24, Rune teaches that the analysis of the topological data comprises a comparison of node identities (Rune, ¶84-94).

As to claim 25, Rune teaches that the analysis of the topological data comprises a comparison of node classifications (Rune, ¶84-94).

As to claim 26, Rune teaches that the first node selectively receives an indication that another node is the central controller (master) node (Rune, ¶70-78).

As to claim 27, Rune teaches a multiphase method performed by at least a first node of a plurality of nodes in a communication network to determine a central coordinator node for the communication network from among the plurality of nodes, comprising the steps of:

conducting a listening phase wherein the first node listens for an indication that a central coordinator (master) node has already been elected (Rune, ¶70-78);

conducting a discovery phase after the listening phase wherein the first node transmits a discover type message including its node identity (DAC of sender in PAGE RESPONSEs) (Rune, ¶25, 83, 88);

conducting an election phase after the discovery phase wherein the first node receives from other nodes elect type messages including lists of discovered node identities (BR\_ADDRs of master nodes in PAGE RESPONSEs) received by other nodes during the discovery phase and generates topological data (BR\_ADDRs of master nodes and any other data listed in ¶84-93) based at least in part on information in the received lists (Rune, ¶25, 84-93); and

conducting a confirm phase after the election phase wherein the first node selectively transmits a confirm type message indicating that the first node is the central coordinator (master) node based at least in part on analysis of the topological data (including BR\_ADDRs of master nodes) (Rune, ¶¶70-78, 84-94).

As to claim 28, Rune teaches that when the first node transmits an indication that the first node is the central coordinator (master) node the first node schedules access on the communication network by other (slave) nodes (Rune, ¶¶8, 70-78).

As to claim 29, Rune teaches that when the first node does not transmit an indication that the first node is the central coordinator (master) node the first node accesses the communication network on a schedule determined by another (master) node that has been elected the central coordinator (master) node (Rune, ¶¶8, 70-78).

As to claim 30, Rune teaches that the first node transitions between phases in response to timers on the first node (Rune, ¶7).

As to claim 31, Rune teaches that the transmitted list includes a node classification (by BR\_ADDR or DAC) of the first node and the received lists include node classifications of other nodes (by BR\_ADDR or DAC) (Rune, ¶¶25, 83, 88).

As to claim 32, Rune teaches a multiphase method performed by at least a first node of a plurality of nodes in a communication network to determine a central coordinator node for the communication network from among the plurality of nodes, comprising the steps of:

starting a listening phase wherein the first node sets a listening phase timer and listens for an indication that a central coordinator (master) node has already been elected (Rune, ¶7, 70-78);

starting a discovery phase when the listening phase timer expires wherein the first node sets a discovery phase timer and transmits its node identity (DAC of sender in PAGE RESPONSEs) (Rune, ¶7, 25, 83, 88);

starting an election phase when the discovery phase timer expires wherein the first node sets an election phase timer, receives from other nodes lists of discovered node identities (BR\_ADDRs of master nodes in PAGE RESPONSEs) received by other nodes during the discovery phase and generates topological data (BR\_ADDRs of master nodes and any other data listed in ¶84-9) based at least in part on information in the lists (Rune, ¶7, 25, 84-93); and

starting a confirm phase when the election phase timer expires wherein the first node selectively transmits an indication that the first node is the central coordinator (master) node based at least in part on analysis of the topological data (BR\_ADDRs of master nodes) (Rune, ¶7, 70-78, 94).

As to claim 33, Rune teaches that when the first node transmits an indication that the first node is the central coordinator (master) node the first node schedules access on the communication network by other (slave) nodes (Rune, ¶8, 70-78).

As to claim 34, Rune teaches that when the first node does not transmit an indication that the first node is the central coordinator (master) node the first node accesses the communication network on a schedule determined by another (master) node that has been elected the central coordinator (master) node (Rune, ¶8, 70-78).

As to claim 35, Rune teaches that the transmitted list includes a node classification (by BR\_ADDR or DAC) of the first node and the received lists include node classifications of other nodes (by BR\_ADDR or DAC) (Rune, ¶25, 83, 88).



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571)272-5865. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Philip S. Scuderi/

/Glenton B. Burgess/  
Supervisory Patent Examiner, Art Unit 2153